

Charleston Green

What does Green
mean to Charleston?

NATIONAL CONVERSATION ON CLIMATE ACTION

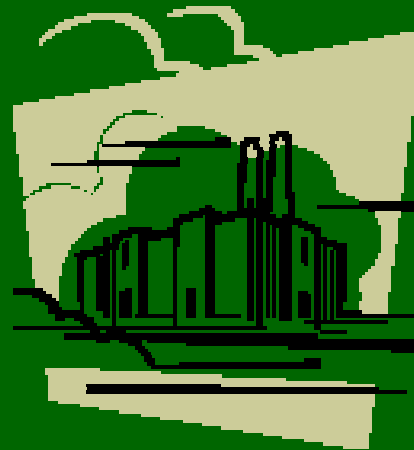
OCT. 4, 2007



Why Charleston is Going Green

The Scientific Evidence for Global Climate Change

1. Human activity has increased carbon dioxide concentrations in the atmosphere



Why Charleston is Going Green

The Scientific Evidence for Global Climate Change

1. Human activity has increased carbon dioxide concentrations in the atmosphere.
2. More carbon dioxide means higher temperatures.

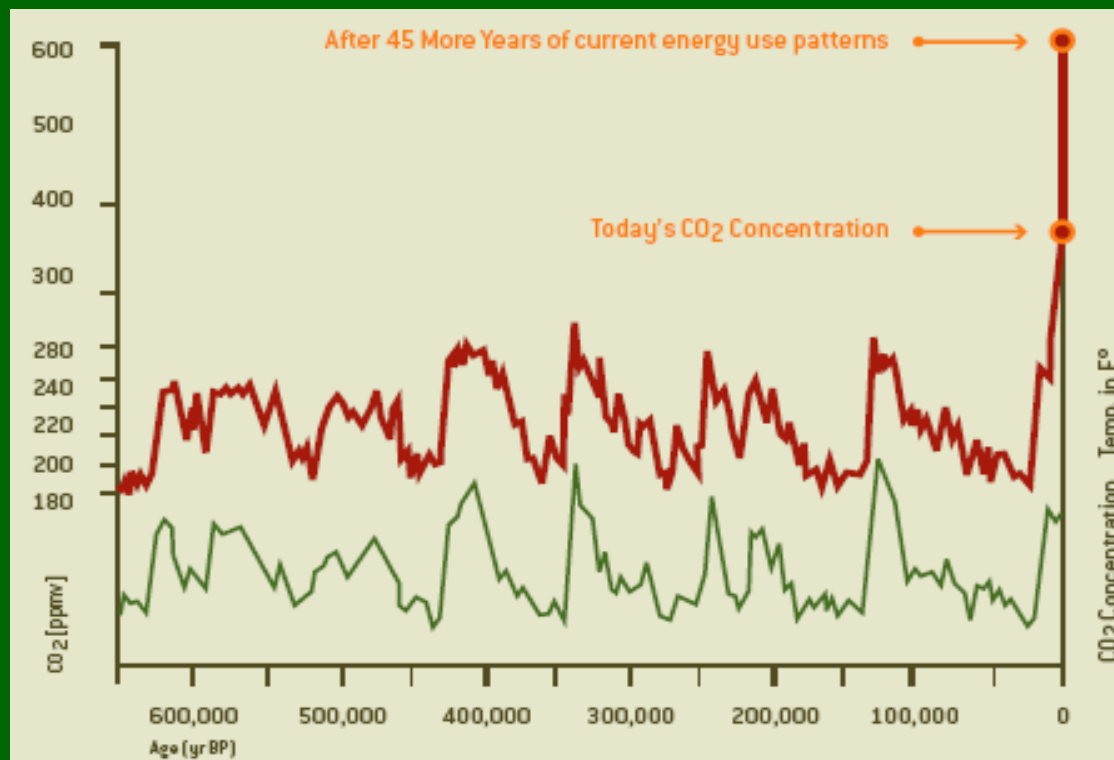
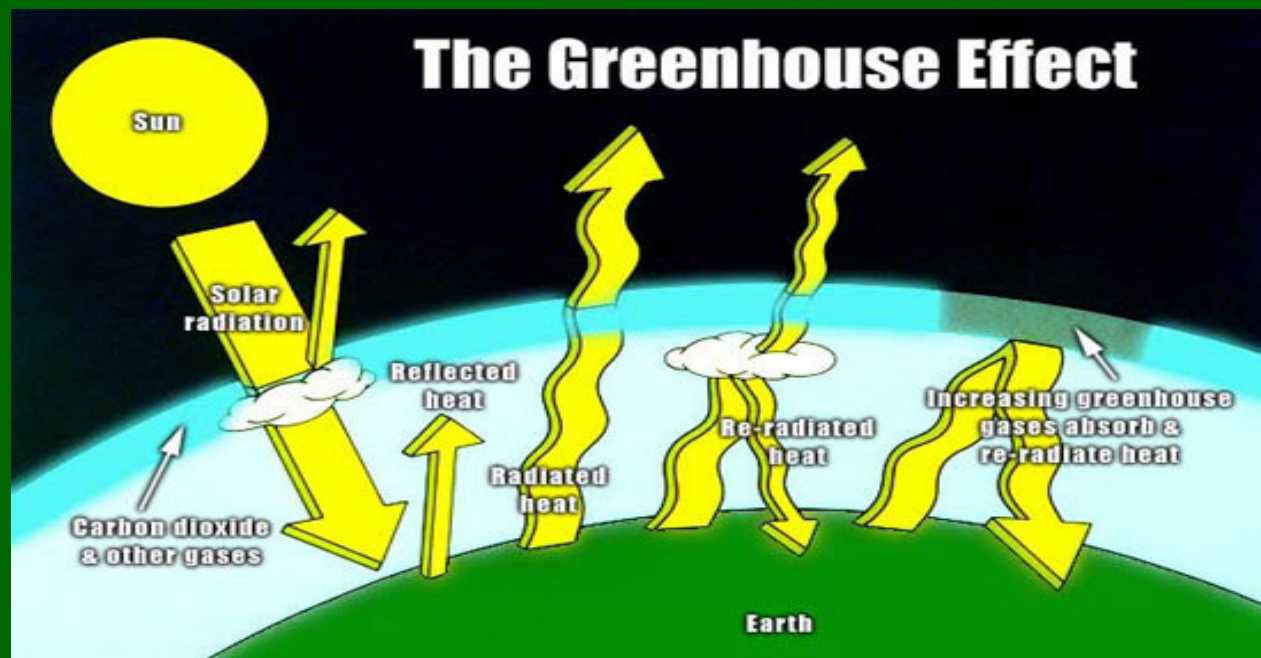


Chart Source: British Antarctic Survey

Why Charleston is Going Green

The Scientific Evidence for Global Climate Change

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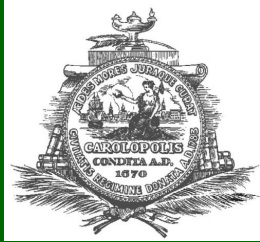
The Scientific Evidence for Global Climate Change

1. Human activity has increased carbon dioxide concentrations in the atmosphere.
2. More carbon dioxide means higher temperatures.
-Carbon dioxide raises global temperatures through the “greenhouse effect.”
3. The consequences of climate change are already detectable.
 - Rising sea levels
 - Hurricanes
 - Heat waves
 - Drought
 - Wildfires

Why Charleston is Going Green

The Scientific Evidence for Global Climate Change

1. Human activity has increased carbon dioxide concentrations in the atmosphere.
2. More carbon dioxide means higher temperatures.
Carbon dioxide raises global temperatures through the “greenhouse effect.”
3. The consequences of climate change are already detectable.
4. Immediate Reductions in Carbon Dioxide Emissions are Necessary



City of Charleston Green Committee

James Meadors
Yvonne Evans
Dr. Mitchell Colgan
Dr. Phillip Dustan
Ross Nelson
Bryan Collins
Jerome Clemons
Elizabeth Hagood
Christine Cooley
Ian Sanchez
Joe Fersner
Paulette Myers
Nina Fair
Stephen Johnston
Dean Johnson
Kristopher King
Montez Martin
Dick Dalla Mura

Meadors Inc.
City Councilmember
Earth Scientist; College of Charleston
Biologist; College of Charleston
Tidewater Environmental Services
Sandlapper Water Tours
South Carolina National Heritage Corridor
South Carolina Coastal Conservation League
Sustainability Manager; MUSC; Sierra Club
Alternative Energy Meetup Group
Woolpert
Thomas & Denzinger Architects, LEED
Fair Consulting LLC, LEED
Charleston Classic Homes; Earthcraft House
Eco Development LLC
Wecco of Charleston, LLC
Charleston County Housing Authority
Past Director Center for Sustainable Living

Little Green Bag



Jennifer Mathis

www.littlegreenbagproject.com

Green Committee Mission

- Provide **leadership** and practical **solutions** to ensure a prosperous community that will **sustain** healthy lives for our citizens and a healthy **earth**.
- Work to **inspire** individuals and organizations –both within and outside City government – to **take actions** that help make Charleston a model of healthy and ecologically sustainable living
- Work with City government, business groups, nonprofit organizations and other partners to **protect** and **enhance** Charleston's distinctive environmental quality and livability.

Green Committee Charge

Create a Local Action Plan on Climate Change

- Ready for presentation to City Council by July of 2008
- Understand the impact of the City's goal of reducing the City's greenhouse gas emissions by 7% from its 1990 levels by the year 2012
- Provide policy recommendations to help achieve the City's goal

What's been done?

Local Action Plan on Climate Change

International Council for Local Environmental
Initiatives (ICLEI)

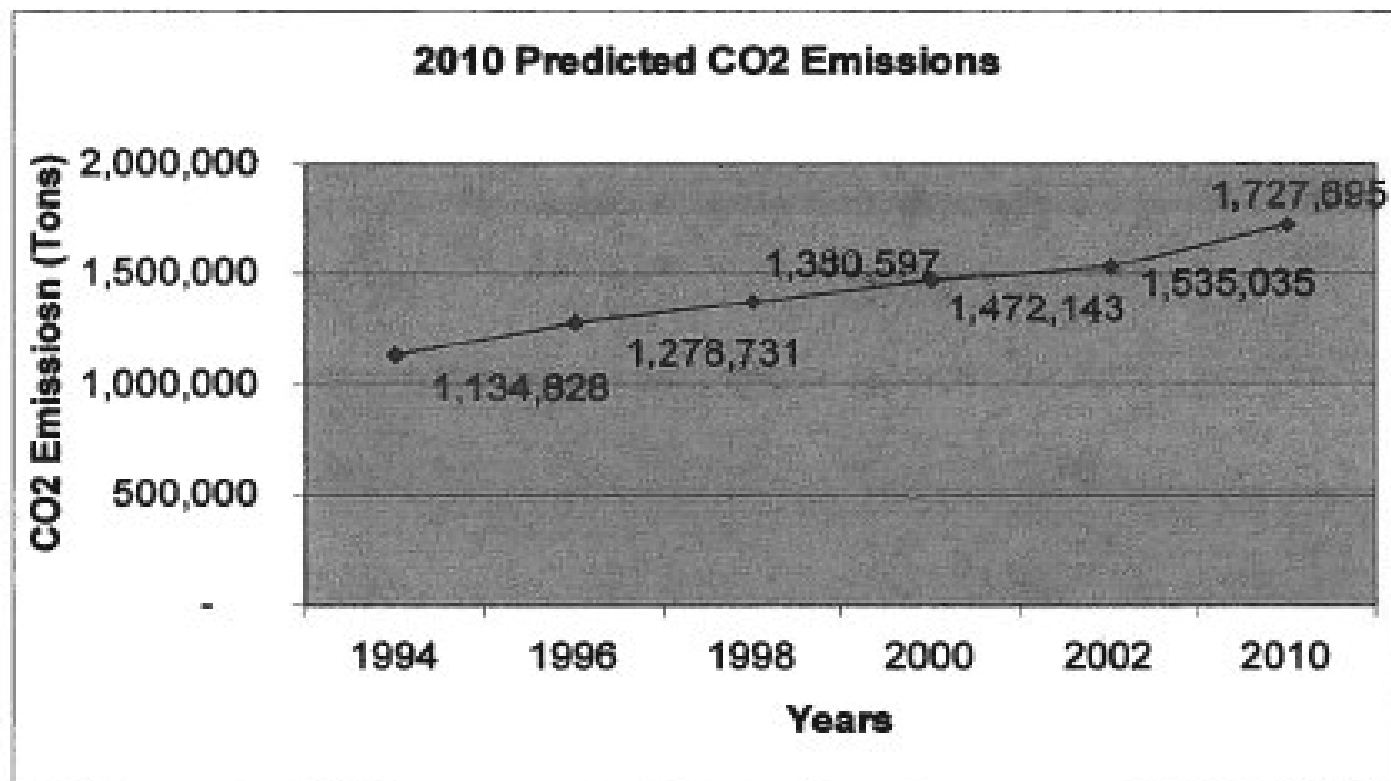
Blueprint for City Action on Climate Change

1. Conduct baseline emissions inventory and forecast (2002 done; doing for 2006)
2. Adopt emissions reduction target
3. Develop local action plan
4. Implement local action plan
5. Monitor and verify results

What's been done?

Local Action Plan on Climate Change

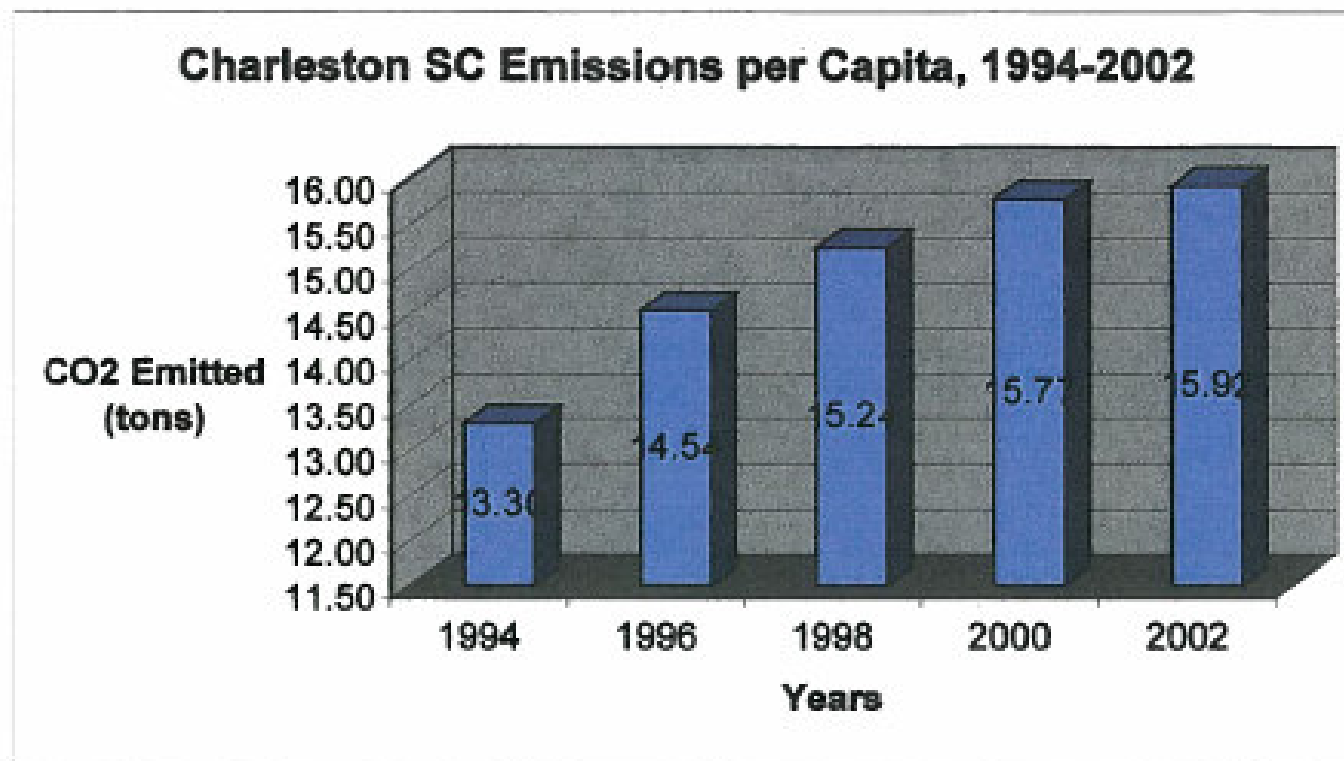
2002



Charleston, SC Predicted 2010 Emissions

What's been done?

Local Action Plan on Climate Change 2002

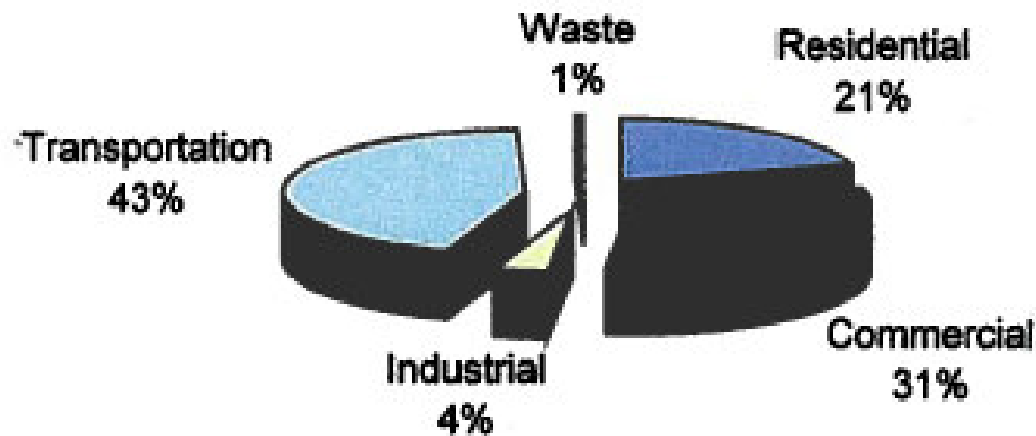


Charleston, SC Emissions/Capita, 1994-2002 (Tons of CO₂/Person)

What's been done?

Local Action Plan on Climate Change 2002

City of Charleston 2002 Community Emissions by Sector



What's Been Done

Local Action Plan (2002 data)

Recommended 14 initiatives; 10 are underway

1. Creation of an Office of Energy Efficiency – budget request item for 2008 City budget
2. Lifecycle Purchasing – working on via Johnson Controls
3. Environmentally Preferable Products Procurement Program – underway via Information Technology
4. Low Income Energy Efficiency Subsidies
5. Implement Biodiesel for Fleet Vehicle –working on – currently none available east of Orangeburg
6. Green Fleets - working on – 2 hybrid cars in municipal fleet and at least 15 Police vehicles are E-85 compatible. Those numbers will increase each year.

What's Been Done

Local Action Plan (2002 data)

7. Switch to Energy Efficient LED (Light Emitting Diode) Traffic Signals and Exit Signs – working on 40% complete
8. Earth Force Environmental Education Collaboration y
9. Improve Streetlight Efficiency
10. Reduce Urban Heat Sinks – working on
11. Park and Ride Stations – working on
12. Comprehensive Commuter Trip Reduction Program – implementing for City staff
13. Pay As You Throw Waste Management Practices - evaluating
14. Local Housing/Building Code Changes

What's Been Done

- Local Action Plan for Climate Change 2002 data
- Cities for Climate Protection Campaign
 - Charleston signed the U.S. Mayors Climate Protection Agreement in 2005
- Mayor Riley is co-chairing with Spartanburg Mayor Bill Barnet the S.C. Mayors for Energy Leadership



What's Been Done

- Local Action Plan for Climate Change 2003
- Cities for Climate Protection Campaign
- City Building Energy Efficiency Project (Johnson Controls)
 - *reduced Greenhouse Gases over 19,000 tons*
 - *reduced Volatile Organic Compounds (VOC) 391 pounds*
 - *reduced Nitrogen Oxides over 65,000 pounds*
 - *reduced Carbon Monoxide over 3,200 pounds*
 - *reduced Sulfur Dioxide over 148,000 pound*
 - *reduced Particulates over 6,600 pounds*
 - *reduced Mercury nearly 200,000 milligrams*

The anticipated reductions with this program will equal the positive effects of planting over **171,000 new trees** and removing more than **11,000 cars** from our roads!

What's Been Done

- Local Action Plan for Climate Change 2003
- Cities for Climate Protection Campaign
- Charleston Energy Efficient Project
- Creation of a Staff Green Team
 - Their focus is on internal improvements in the operations of the City that improve Charleston's environment through more sustainable practices. The Staff Green Team has produced a report of the City's current practices, immediate and long term proposals for Green Initiatives for the City. Some examples are...
 - City's First Change a Light Day where citizens are encouraged to change lighting to CFLs. Tuesday, October 9th
 - Urging fellow staff members to do more by
 - printing less,
 - using blackle.com
 - Using LEED technologies for new City construction
 - and literally hundreds more practices

What's Been Done

- Local Action Plan for Climate Change 2003
- Cities for Climate Protection Campaign
- Charleston Energy Efficient Project
- Creation of a Staff Green Team
- And much, much more
 - Regional Planning and the Council of Governments
 - Encouraging Bikes, Buses and Better Sidewalks
 - Updating the Preservation Plan
 - Street tree program
 - Planning for more compact, efficient developments
(SMART GROWTH)

Green Committee Charge

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Green Committee Timeline

November

Charleston Green Committee - working meeting

Reports on work of other cities

Reports on our priority issues

Issues and initial recommendations from groups such as USGBC, LEEP, SCCCL, LOLT, Sierra Club, Earth Force, DHEC Air Quality, Sustainability Institute etc.

December

Finish emissions report (2002/2006)

Charleston Green Committee meets to hear baseline emissions report

Green Committee Timeline

January-June

Green Committee organizes sub committees to work on priorities

Subcommittees meet a

Committee meets as needed

July

Report due to City Council

Identifying Priority Issues

1. Energy (pink)

- a. Building-Related Energy Efficiencies
- b. Renewable Energy
- c. Natural Resources
- d. Education and Outreach

2. Transportation (blue)

- a. Vehicle Efficiency
- b. Alternative Fuels
- c. Public Transportation and Carpool
- d. Bike/Walkability
- e. Natural Resource
- f. Education and Outreach

3. Recycling and Waste Management (green)

- a. Recycling and Reusing
- b. Waste Management
- c. Energy production from waste by-products
- d. Natural Resources
- e. Education and Outreach

4. Land-Use and Planning (yellow)

- a. Anti-sprawl/Urban Density
- b. Open Space Preservation
- c. Natural Resources
- d. Education and Outreach

Group Reports

Energy

Transportation

Recycling and Waste
Management

Land-Use and Planning

Assignments

Committee Members

- Pick one these top priorities
- Your job is to research what other cities have done to implement these issues

Assignments Everyone

- Rank the most important issues

Pick your top four priorities for the City of Charleston's Green Committee.

Rank them from 1 to 4 with

- 1 being the most and
- 4 being the least important of these top 4

Thank You!

www.charlestongreen.us -coming soon

Next meeting proposed to be

Friday November 9, 2007

1-3 pm

Main Conference Room on the 3rd floor at
75 Calhoun Street

Announcements